

ABSTRACT

A device for measuring electrical activity of biological elements, including a substrate that has lower and upper faces and at least one through opening, the opening being delimited by a set of walls. Two plates are placed on either side of the lower and upper faces of the substrate and delimit, with the set of walls, a chamber. Each of the plates is provided, on its face lying opposite the substrate, with at least one electrode facing the opening in the substrate. Each of the plates further has at least one channel that starts inside the chamber and connects the chamber to the outside of the device, and the chamber communicates with the outside of the device only through the channels.